

at no additional cost to the Administration. Straightedge requirements apply to areas across joints and repaired cracks but are not applicable to areas outside the ground area.

After the grinding operation is complete, all depressions, potholes, and other irregularities shall be filled and any existing manholes, valve boxes, inlets, or other structures shall be wedged using HMA conforming to Section 504.

509.04 MEASUREMENT AND PAYMENT. Grinding Hot Mix Asphalt Pavement with Carbide Cutting Bits will be measured and paid for at the pertinent Contract unit price per square yard. The square yard measurement will be computed from the actual width and length measurements of the area that has been ground. The payment will be full compensation for grinding, removal and disposal of ground material, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

509.04.01 Filling depressions and potholes, and wedging manholes, valve boxes, inlets, or other structures using hot mix asphalt will be measured and paid for as specified in 106.04.

509.04.02 Hot Mix Asphalt Patches will be measured and paid for as specified in 505.04.

SECTION 510 — FILLING CRACKS IN HOT MIX ASPHALT PAVEMENTS

510.01 DESCRIPTION. This work shall consist of cleaning and filling cracks 1/8 to 1-3/4 in. wide in hot mix asphalt (HMA) pavement as specified in the Contract Documents or as directed by the Engineer. Cracks less than 1/8 in. wide shall not be filled. Distressed areas shall be repaired as specified herein and as directed by the Engineer. Cracks more than 1-3/4 in. wide; and map, edge or alligator cracks requiring major repairs are not included in this Specification (refer to Section 505).

510.02 MATERIALS.

Performance Graded Asphalt Binders and	
Hot Mix Asphalt (HMA)	904.04
Crack Filler	911.01
Aggregate	M 43, No. 10
Tack Coat	M 140

All materials for crack filling will be inspected, tested and as approved by the Engineer before being incorporated into the work.

510.03 CONSTRUCTION. All cracks to be filled will be designated by the Engineer.

Crack Cleaning and Preparation. Existing filler that has deteriorated shall be removed using equipment capable of removing the material to the required depth without damaging the sides of the pavement within the crack. Equipment which causes a "V" shaped groove is prohibited. The Contractor shall be responsible for all damage to sound pavement as a result of construction operations.

Cracks shall be cleaned by high pressure water blasting, abrasive blasting, oil free air blowing, by use of a heat lance, or a combination thereof as approved by the Engineer. Any operation may be suspended by the Engineer when weather conditions might create a hazard to the traveling public.

Cracks shall be completely dry before filling using methods approved by the Engineer.

Prepared cracks will be inspected by the Engineer for debris, adherent dust, and dryness prior to filling. Cracks rejected by the Engineer shall be recleaned and dried until satisfactory.

Cracks varying in width up to 1-3/4 in. shall be divided into segments. Portions of cracks having widths ranging from over 1 in. and up to 1-3/4 in. shall be sawn the full depth of the crack and 1/8 in. wider than the maximum width of the crack. The crack shall be cleaned of all debris as specified above. A tack coat shall be applied to the sides of the crack. The crack shall be repaired as specified in Section 505 using a surface mix approved by the Engineer. An appropriate asphalt content and mixing temperature shall be selected by the Contractor.

Crack Filling. Both the ambient and pavement surface temperature shall be at least 45 F and rising at the time of filler application, unless otherwise recommended by the manufacturer.

Hot applied filler materials for cracks from 1/8 to 1 in. in width shall be heated as recommended by the manufacturer, in a double boiler, indirect heating kettle using oil as a heat transfer medium, or other equipment approved by the Engineer. The kettle shall have a mechanically operated agitator, recirculation pumps, and a positive thermostatic temperature control. The applicator wand and all connecting hoses shall be insulated. Overheating or direct heating of the filler is prohibited.

Filler that has been overheated, heated more than four hours, or any amount of filler that remains in the applicator at the end of the day's operation shall be withdrawn and wasted. Prior to the start of each day's operation, the Contractor shall withdraw a minimum of 1 gal of filler from the applicator wand to be considered as waste material.

Prepared cracks that have been approved by the Engineer shall be filled until the material is level to 1/16 in. below the pavement surface. Any filled crack not in conformance with this requirement two hours after filling shall be refilled as directed by the Engineer.

Cracks that cannot be filled due to filler drainage into a large void shall be repaired by plugging the void with HMA Superpave 4.75 mm, or other suitable material approved by the Engineer, then filling the crack as specified above.

The Contractor shall remove excess filler from the surface of the pavement.

Field prepared flow panels of hot applied crack filler shall be submitted to the Office of Materials and Technology for the flow test a minimum of twice daily, or as directed by the Engineer.

Cracks shall be filled the same day they are prepared. Cracks that are not filled on the same day they are prepared shall be recleaned, dried, and filled.

Traffic shall not be permitted on the pavement surface until the crack filler has cured.

Filler that pulls loose within 96 hours after opening the pavement to traffic shall be repaired by the Contractor at no additional cost to the Administration.

510.04 MEASUREMENT AND PAYMENT. The payment will be full compensation for furnishing, hauling, and placing of all materials, crack shaping, crack filling, the removal and disposal of old filler and debris, and for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment will not be made for wasted material.

510.04.01 Filler Removal, Saw Cutting, Crack Shaping, and Crack Filler will be measured and paid for at the Contract unit price per linear foot.

510.04.02 Patching Material for Cracks will be measured and paid for per linear foot regardless of the width or depth of the crack.